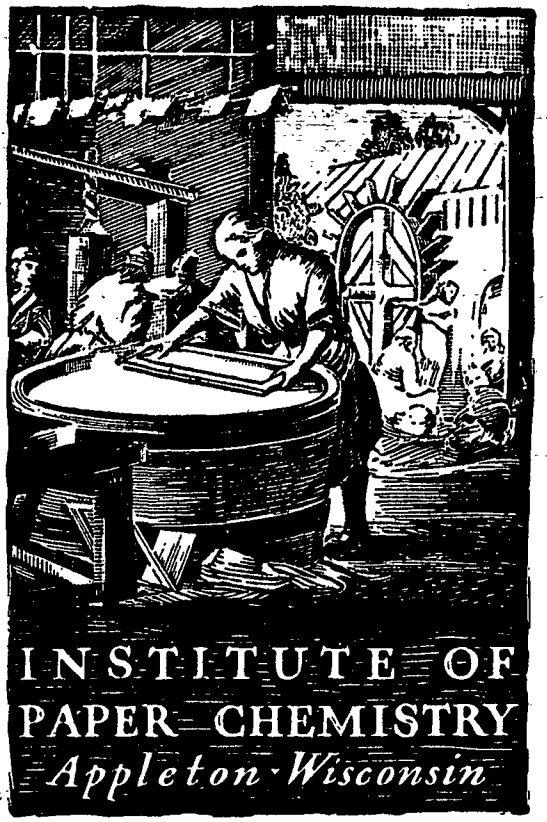

CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 72

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

July 1, 1953

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

CONTINUOUS BASELINE STUDY

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FOURDRINIER KRAFT BOARD INSTITUTE, INC.

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Appleton, Wisconsin

In conjunction with the F.K.I. Continuous Baseline Study, eighty different sample lots of 42-lb. Fourdrinier kraft linerboard were submitted by thirteen different F.K.I. mills to The Institute of Paper Chemistry for testing during the period June 1 through June 30. In addition to the 42-lb. kraft linerboard, five samples of special drum stock were also submitted for evaluation by one of the participating mills. The results on the special stock are tabulated separately in this report. A tabulation of the number of samples classified according to mill may be seen in Table I.

TABLE I

DISTRIBUTION OF 42-LB. LINERBOARD SAMPLES

Mill Code	Samples Submitted
A	6
B	12
C	8
D	7
E	2
F	6
G	4
H	6
I	3
J	8
K	0
L	6
M	10
O	2
	80

These sample lots were tested for basis weight, caliper, bursting strength, G. E. puncture, and Elmendorf tear. The average strength results for each mill may be seen in Table II and are graphically presented in Figures 1 to 6. In addition to a comparison of the mill averages for the various tests, Table II also shows the current F.K.I. averages, the cumulative F.K.I. averages, and the F.K.I. indexes. The cumulative F.K.I. average includes all the results up to but not including the current period; the current period in the case of this report is June 1 through June 30. The F.K.I. indexes are obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index (\%)}$$

The F.K.I. index provides a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 43.0 lb., and the cumulative F.K.I. average basis weight is 43.1 lb. Hence, the index for basis weight determined in per cent as indicated above is 99.8. This signifies that the current average basis weight is slightly lower than the cumulative average, which in this case covered the period from July 25, 1947, through May 31, 1953.

A comparison of the results in Table II and Figure 1 shows that the average basis weight results for all mills except F and O conform to the 42-lb. specification set forth in Rule 41. Mill C has the highest average basis weight, it being 43.8 lb. or approximately 4.3% higher than the 42-lb. specification. On the other hand, Mill O has the lowest average basis weight, it being 41.7 lb., approximately 0.7% lower than the 42-lb. specification.

The amount by which the mills vary from the 42-lb. specification is as follows:

Mill Code	Per Cent
A	+2.1
B	+1.9
C	+4.3
D	+3.1
E	+3.8
F	-0.5
G	+4.0
H	+2.6
I	+2.4
J	+1.4
K	---
L	+3.8
M	+2.1
O	-0.7

A comparison of the average basis weight data for the previous period with the current F.K.I. average indicates that the basis weight results have decreased slightly.

A comparison of the average caliper values for the various mills (see Figure 2) shows that the mill averages vary from a low of 12.0 for Mill O to a high of 14.6 for Mill C, the average being 13.1 which is somewhat lower than the cumulative average of 13.9.

The average bursting strength values obtained for each mill are graphically presented in Figure 3. It may be observed that the

average bursting strength values for the various mills range from a low of 105 for Mills F and I to a high of 112 for Mill G. The current F.K.I. average bursting strength is 108, somewhat higher than the cumulative average of 106.

The data of Table II and Figure 4 show that the average G. E. puncture result for all mills is 33 units. Mills C and D share the highest G. E. puncture average, 37 units; Mill B has the lowest average, 28 units. The current F.K.I. G. E. puncture average of 33 units is lower than the cumulative F.K.I. average which is 36 units.

A graphic comparison of the Elmendorf tear results for the various mills is given in Figures 5 and 6. The data of Table II show that Mill M has the highest average machine direction tear value while Mill B has the lowest. Mill C has the highest average cross-machine direction tear value, whereas Mill B has the lowest value. It may be noted that the current F.K.I. average machine and cross-machine direction tear results are lower than the cumulative averages.

A comparison of the F.K.I. indexes indicates that, for the current period, the current F.K.I. averages for basis weight, caliper, G. E. puncture and Elmendorf tear are lower than the respective cumulative F.K.I. averages, whereas the current F.K.I. average for bursting strength is higher.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XVI for Mills A to O, respectively. In addition to the current

and cumulative averages, the mill factor and mill index are given for each mill. The cumulative mill average is the average test result obtained on the samples submitted by the particular mill up to, but not including, the current average. The mill factor and the mill index are obtained as follows:

$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor (\%)}$$

$$\frac{\text{current mill average}}{\text{cumulative F.K.I. average}} \times 100 = \text{mill index (\%)}$$

The mill factor and the mill index serve as a ready means for comparing the current mill results either with the previous results for that particular mill or with the cumulative F.K.I. results. As the test data accumulate, the factors and indexes acquire added significance. The reports also contain a comparison of the test data obtained at the mills with test data obtained at The Institute of Paper Chemistry.

The results obtained on the special drum stock may be seen in Table XVII.

It may be noted in Tables III through XVI that the data have been separated on the basis of the sheet finish. The summarized results for the mills which submitted sample lots during the current period are as follows:

Mill Code	No. of Sample Lots W.F.	D.F.	Misc.
A	6[a]		
B	12[a]		
C	8		
D	7		

(Continued on next page.)

Mill Code	No. of Sample Lots W.F.	D.F.	Misc.
E	2, 5[b]		
F	2		4[c]
G	4		
H	6[a]		
I	3[a]		
J			8[d]
L			6[c]
M	10		
O	1		1[c]

[a] One side only.
[b] Drum linerboard.
[c] Sheet finish not reported.
[d] Semi-water finish.

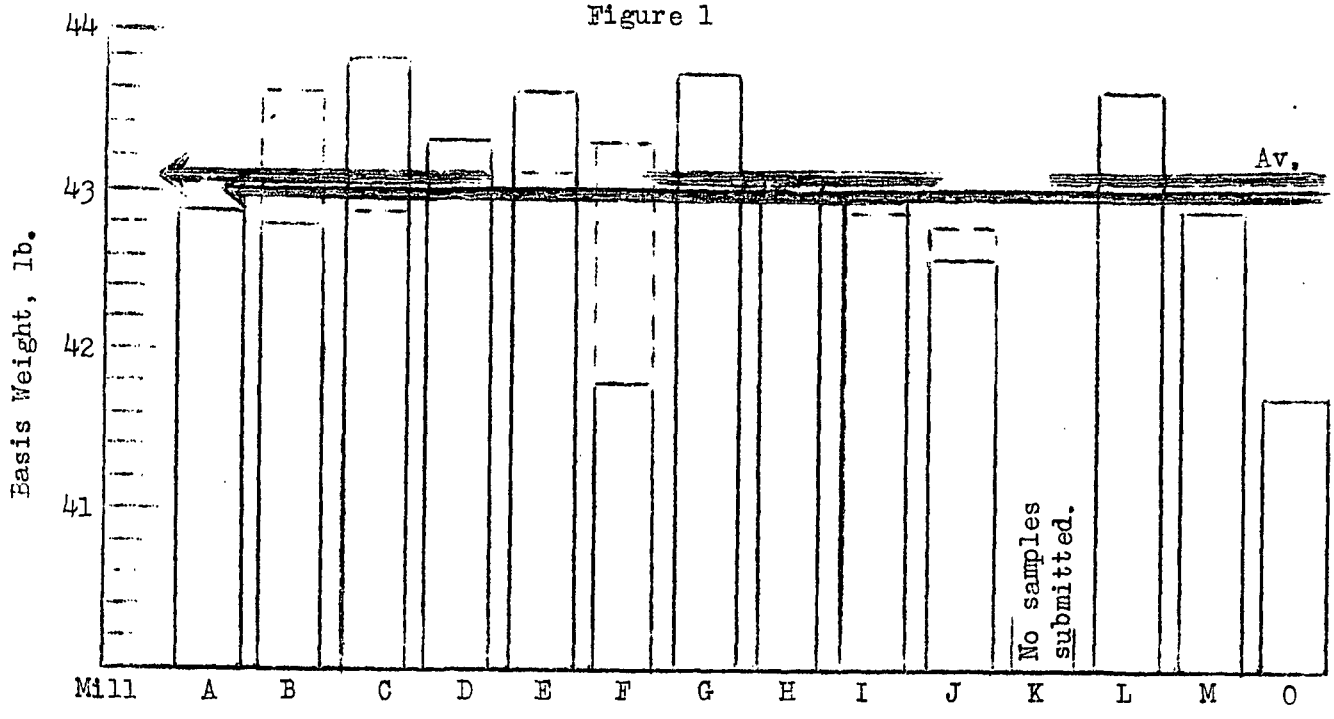
The results indicate that a majority of the mills are using a water finish on their 42-lb. linerboard.

TABLE II

SUMMARY OF COMPOSITE MILL AVERAGES--JUNE 1 THROUGH JUNE 30, 195

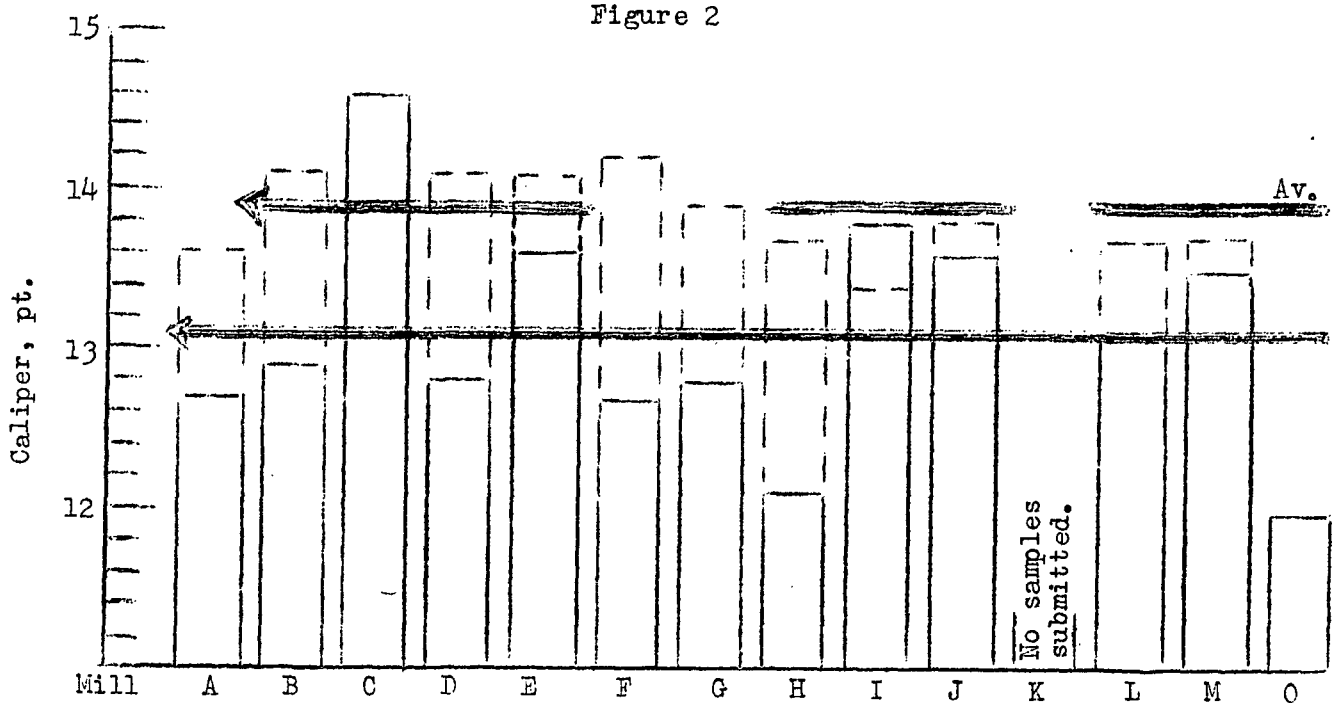
Code No.	Basis Weight, lb.	Caliper, points	Bursting Strength, p.s.i. gage	G. E. Puncture, units	Elmendorf Tear, g./sheet In Direction	Elmendorf Tear, g./sheet Across Direction
A	42.9	12.7	111	33	338	386
B	42.8	12.9	106	28	291	341
C	43.8	14.6	108	37	383	413
D	43.3	12.8	108	37	373	405
E	43.6	13.6	107	34	356	384
F	41.8	12.7	105	35	374	405
G	43.7	12.8	112	32	333	382
H	43.1	12.1	108	33	358	400
I	43.0	13.8	105	32	340	390
J	42.6	13.6	111	32	345	373
K	No samples submitted.					
L	43.6	13.1	108	34	350	377
M	42.9	13.5	111	34	389	403
O	41.7	12.0	107	31	333	368
Current FKI Average:	43.0	13.1	108	33	351	387
Cumulative FKI Average:	43.1	13.9	106	36	372	405
FKI Index, %:	99.8	94.2	101.9	91.7	94.4	95.6

Figure 1



COMPARISON OF BASIS WEIGHT RESULTS
(Period June 1 - June 30)

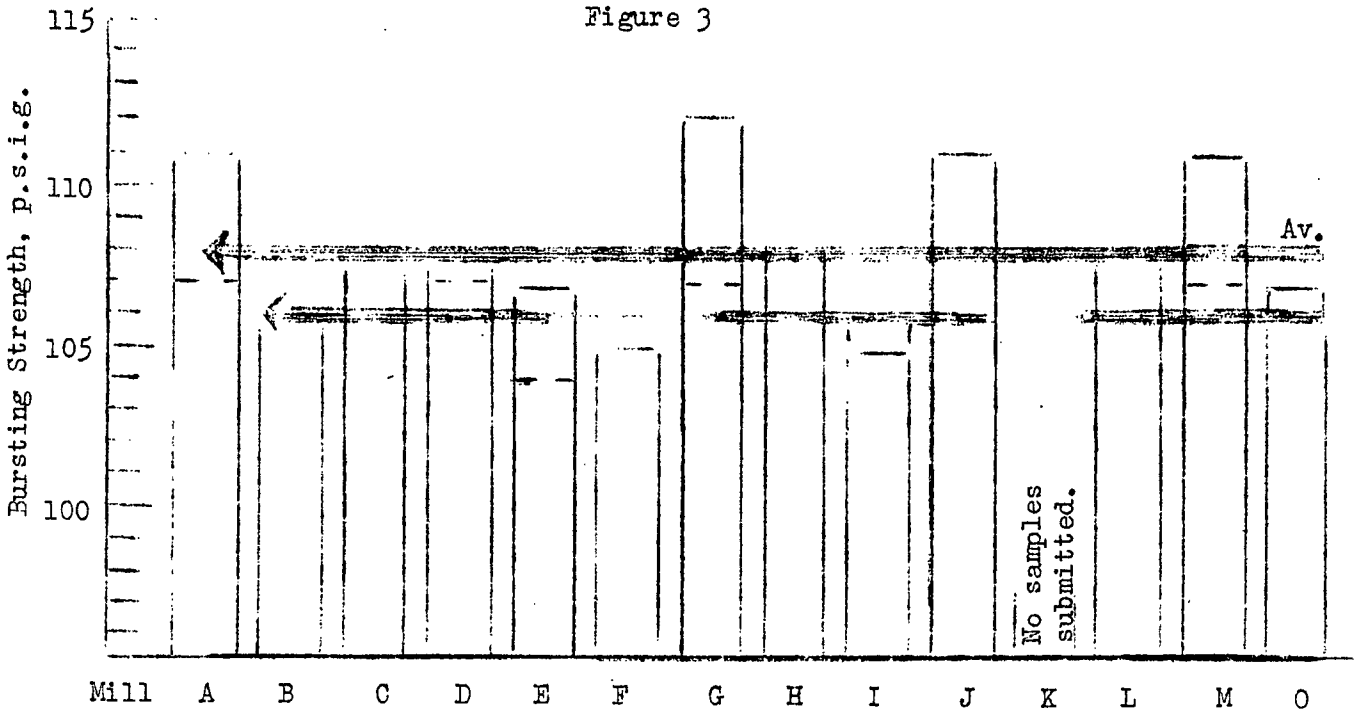
Figure 2



COMPARISON OF CALIPER RESULTS
(Period June 1 - June 30)

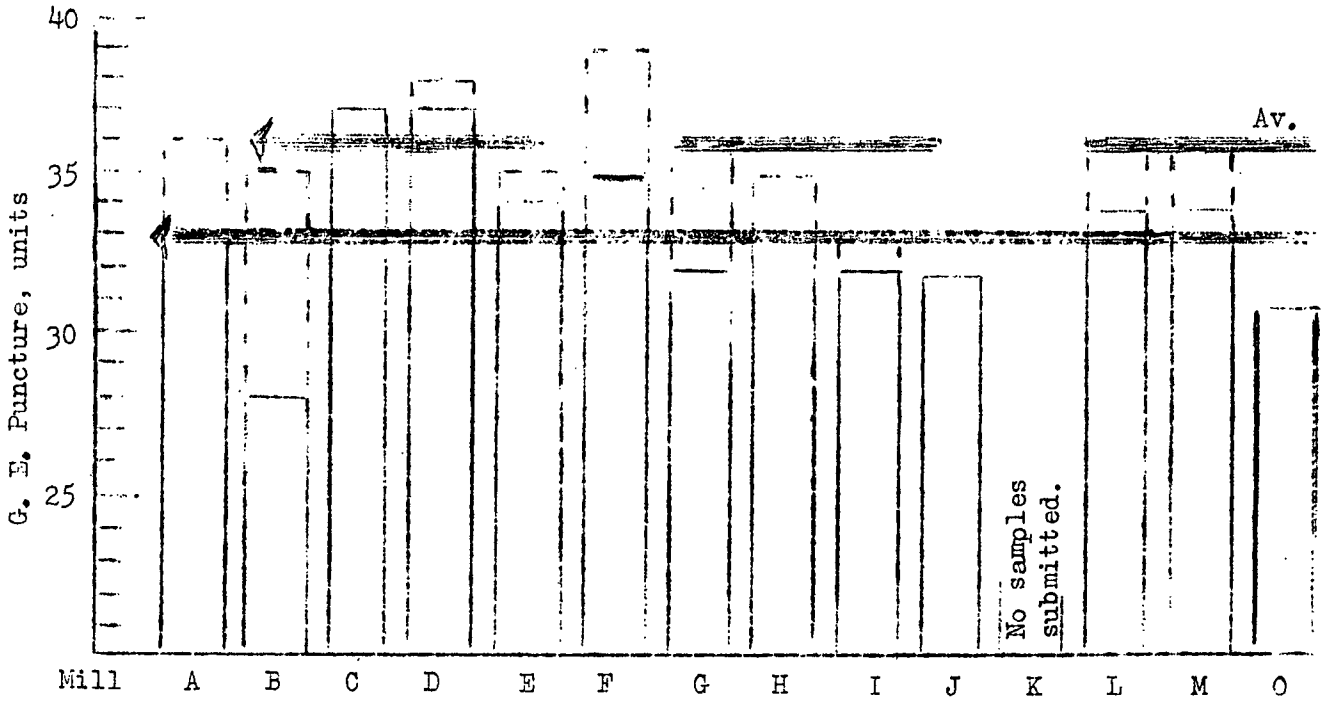
——— Current Mill Average
- - - - Cumulative Mill Average

Figure 3



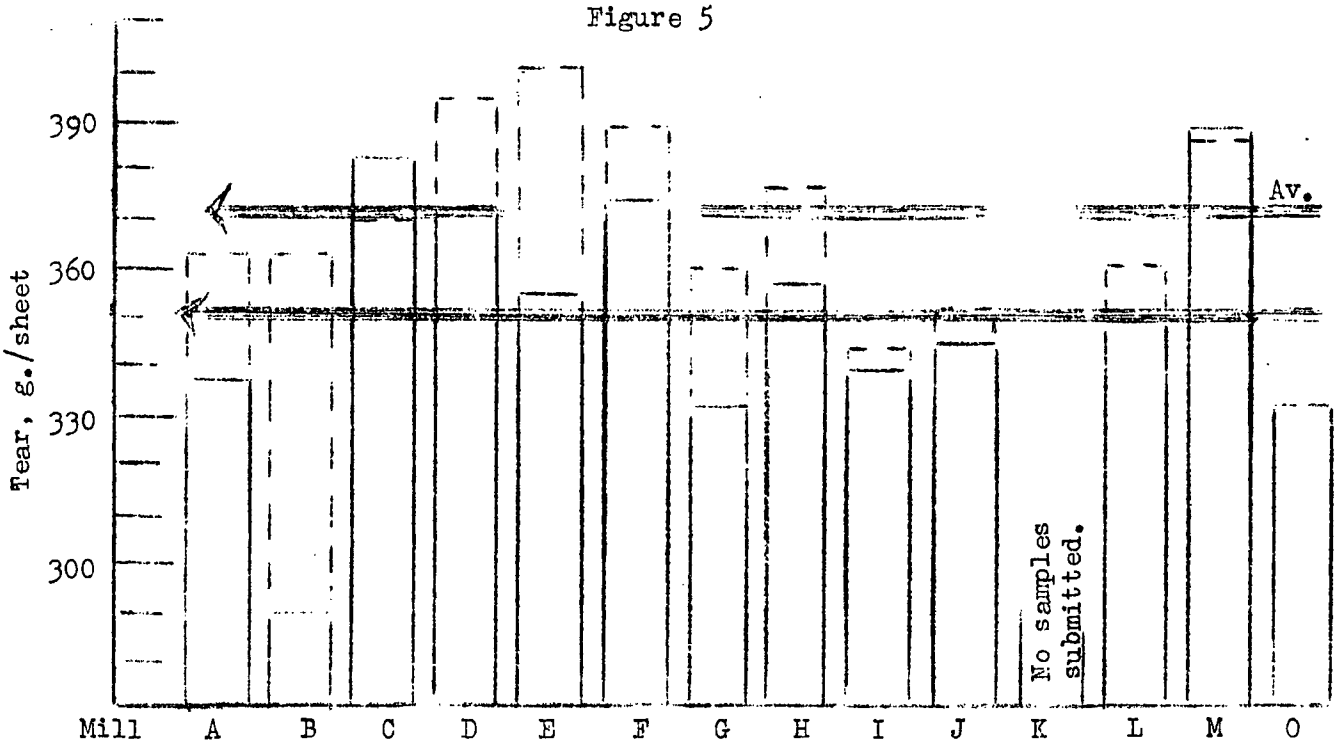
COMPARISON OF BURSTING STRENGTH RESULTS
(Period June 1 - June 30)

Figure 4



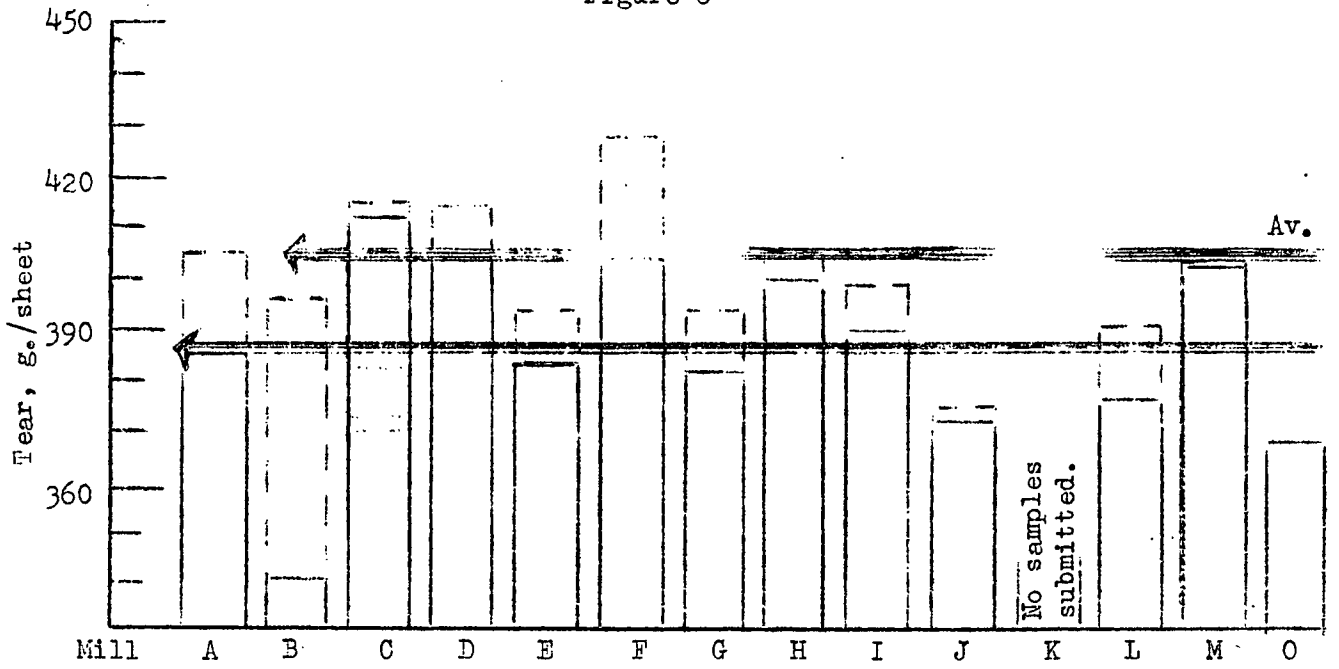
COMPARISON OF G. E. PUNCTURE RESULTS
(Period June 1 - June 30)

Figure 5



COMPARISON OF TEAR RESULTS, Machine Direction
(Period June 1 - June 30)

Figure 6



COMPARISON OF TEAR RESULTS, Across-machine Direction
(Period June 1 - June 30)

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
																		In			Across		
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill A--42-lb. Linerboard																							
154378	A-452	WF1S	6/ 4/53	5/25/53	2	44.0	42.2	43.4	13.9	12.8	13.2	120	87	105	37	32	34	456	312	361[a]	424	352	381[a]
154379	A-453	WF1S	6/ 4/53	5/25/53	2	44.4	42.2	43.1	13.5	12.2	13.0	122	85	104	35	31	33	376	272	327[a]	424	336	393[a]
154410	A-454	WF1S	6/ 8/53	5/31/53	2	44.0	42.0	43.2	13.0	12.0	12.4	135	100	115	37	32	34	392	304	343	432	368	397[a]
154411	A-455	WF1S	6/ 8/53	6/ 1/53	2	43.8	42.8	43.3	12.9	12.0	12.3	143	95	116	36	32	33	424	320	362[a]	440	360	397[a]
154518	A-456	WF1S	6/18/53	6/ 7/53	2	42.2	41.4	42.0	13.1	12.1	12.6	131	94	113	34	30	32	368	248	315	408	352	378[a]
154519	A-457	WF1S	6/18/53	6/ 7/53	2	43.2	42.0	42.2	13.0	12.1	12.7	129	89	112	35	30	32	352	272	321	416	328	369[a]
Current Mill Average:								42.9			12.7			111			33			338			386
Cumulative Mill Average:								42.9			13.6			107			36			363			406
Mill Factor, %:								100.0			93.4			103.7			91.7			93.1			95.1
Mill Index, %:								99.5			91.4			104.7			91.7			90.9			95.3

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953 (Continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill B--42-lb. Linerboard																							
154352	B-803	WF1S	6/ 1/53	5/ 5/53	1	43.0	42.0	42.5	13.4	12.0	12.8	129	88	108	32	26	28	336	248	287	392	320	352[a]
154353	B-804	WF1S	6/ 1/53	5/ 5/53	1	43.6	41.6	42.5	13.2	12.4	12.9	125	84	109	30	26	28	296	256	276	400	320	351[a]
154354	B-805	WF1S	6/ 1/53	5/ 5/53	1	44.2	42.0	42.7	13.5	12.2	12.9	131	87	107	30	26	28	344	232	285[a]	384	296	335[a]
154355	B-806	WF1S	6/ 1/53	5/ 5/53	1	43.8	41.8	42.6	13.1	12.1	12.8	129	80	110	30	26	28	320	264	283	400	320	351[a]
154454	B-807	WF1S	6/12/53	5/29/53	1	44.0	42.0	42.8	13.5	12.1	12.9	123	89	103	32	26	30	360	280	316[a]	384	304	348[a]
154455	B-808	WF1S	6/12/53	5/29/53	1	44.0	43.0	43.7	13.9	12.4	13.1	121	83	103	30	27	29	344	240	285[a]	368	296	333[a]
154456	B-809	WF1S	6/12/53	5/29/53	1	43.4	42.2	42.8	13.9	12.4	13.0	124	89	103	31	28	29	328	264	297[a]	376	296	333[a]
154457	B-810	WF1S	6/12/53	5/29/53	1	43.8	42.0	42.8	13.6	12.8	13.1	130	86	103	29	24	27	336	256	295[a]	416	304	344[a]
154514	B-811	WF1S	6/18/53	5/29/53	1	43.2	42.0	42.8	13.8	12.1	12.9	120	79	105	28	24	27	344	240	293	392	288	334[a]
154515	B-812	WF1S	6/18/53	5/29/53	1	43.6	42.2	42.7	13.5	12.0	12.9	128	89	106	30	26	27	368	272	313	352	304	329[a]
154516	B-813	WF1S	6/18/53	5/29/53	1	43.6	42.0	42.8	13.6	12.7	13.1	128	85	107	30	26	28	328	224	289	392	280	355[a]
154517	B-814	WF1S	6/18/53	5/29/53	1	43.8	42.0	42.7	13.6	12.3	13.0	126	82	106	28	24	27	328	200	268[a]	368	296	333[a]
Current Mill Average:								42.8			12.9			106			28			291			341
Cumulative Mill Average:								43.6			14.1			106			35			363			397
Mill Factor, %:								98.2			91.5			100.0			80.0			80.2			85.9
Mill Index, %:								99.3			92.8			100.0			77.8			78.2			84.2

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE V

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953 (Continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G.E. Puncture, units Max.	G.E. Puncture, units Min.	G.E. Puncture, units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill C--42-lb. Linerboard																							
154481	C-475	W.F.	6/16/53	6/ 2/53	1	45.6	43.6	44.7	15.9	13.8	14.7	131	91	108	40	34	38	488	312	385[a]	464	376	408[a]
154482	C-476	W.F.	6/16/53	6/ 2/53	1	46.2	43.6	44.7	15.8	13.9	14.8	130	92	107	40	34	37	432	352	391	488	344	413[a]
154483	C-477	W.F.	6/16/53	6/ 3/53	1	44.0	42.0	42.9	15.1	14.0	14.5	133	78	109	40	34	36	416	320	365[a]	448	384	402[a]
154484	C-478	W.F.	6/16/53	6/ 3/53	1	43.8	42.2	42.8	15.2	14.1	14.5	138	82	108	38	32	35	416	312	363[a]	512	384	412[a]
154485	C-479	W.F.	6/16/53	6/ 9/53	1	44.4	42.2	43.7	15.0	13.4	14.5	128	76	104	39	32	37	448	344	388[a]	496	384	422[a]
154486	C-480	W.F.	6/16/53	6/ 9/53	1	44.2	42.2	43.5	15.0	14.0	14.4	125	90	109	40	32	37	440	344	391[a]	432	352	398[a]
154487	C-481	W.F.	6/16/53	6/10/53	1	45.4	43.6	44.2	15.5	14.0	14.9	129	82	106	38	34	36	432	352	391[a]	456	400	421[a]
154488	C-482	W.F.	6/16/53	6/10/53	1	44.4	43.6	44.0	15.1	14.2	14.7	130	86	111	42	36	39	496	304	388[a]	464	384	427[a]
Current Mill Average:								43.8			14.6			108			37			383			413
Cumulative Mill Average:								42.9			13.9			106			37			370			416
Mill Factor, %:								102.1			105.0			101.9			100.0			103.5			99.3
Mill Index, %:								101.6			105.0			101.9			102.8			103.0			102.0

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VI

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953 (Continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G.E. Puncture, units			Elmendorf Tear, g./sheet					
																		In			Across		
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill D--42-lb. Linerboard																							
154409	D-659	W.F.	6/ 8/53	6/ 3/53	4	44.6	42.6	43.8	13.6	12.3	13.1	144	94	113	42	33	37	464	336	391[a]	504	376	423[a]
154401	D-660	W.F.	6/ 6/53	6/ 4/53	--	43.6	40.8	42.3	13.1	11.7	12.2	133	83	111	37	32	34	432	336	374[a]	440	344	373[a]
154459	D-661	W.F.	6/12/53	6/ 5/53	--	44.0	42.0	42.8	13.1	12.1	12.8	126	75	102	40	34	37	416	320	368[a]	440	352	398[a]
154460	D-662	W.F.	6/12/53	6/ 9/53	4	44.0	42.0	43.2	13.4	12.0	12.7	132	74	109	40	35	37	400	312	365[a]	472	360	433[a]
154469	D-663	W.F.	6/13/53	6/10/53	4	44.5	42.4	43.4	13.2	12.2	12.8	131	80	108	40	34	37	432	304	349[a]	472	320	392[a]
154513	D-664	W.F.	6/18/53	6/15/53	4	44.4	43.0	43.8	14.0	12.1	13.0	122	80	105	40	36	37	448	320	371[a]	480	384	410[a]
154545	D-665	W.F.	6/22/53	6/17/53	4	45.0	43.8	44.0	13.4	12.7	13.0	133	84	108	40	34	37	472	320	394[a]	464	368	406[a]
Current Mill Average:								43.3			12.8			108			37			373			405
Cumulative Mill Average:								43.3			14.1			107			38			395			414
Mill Factor, %:								100.0			90.8			100.9			97.4			94.4			97.8
Mill Index, %:								100.5			92.1			101.9			102.8			100.3			100.0

TABLE VII

Mill E--42-lb. Linerboard

154476	E-8	W.F.	6/15/53	6/10/53	2	43.8	42.0	43.1	13.8	12.1	13.1	128	73	104	36	31	34	400	304	355[a]	416	320	374[a]
154512	E-9	W.F.	6/18/53	6/12/53	2	45.0	43.0	44.2	14.3	13.6	14.0	132	92	110	36	32	34	392	312	357[a]	432	352	394[a]
Current Mill Average:								43.6			13.6			107			34			356			384
Cumulative Mill Average:								43.1			14.1			104			35			401			394
Mill Factor, %:								101.2			96.5			102.9			97.1			88.8			97.5
Mill Index, %:								101.2			97.8			100.9			94.4			95.7			94.8

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VIII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953 (Continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill F--42-lb. Linerboard																							
154366	F-30	--	6/ 2/53	5/14/53	--	42.6	40.0	41.2	12.8	10.3	12.2	124	91	106	33	29	31	384	320	351[a]	424	360	385[a]
154367	F-31	--	6/ 2/53	5/14/53	--	42.2	40.0	41.0	13.1	10.8	12.1	121	88	105	36	31	33	400	320	365[a]	440	376	403[a]
154437	F-32	W.F.	6/10/53	5/23/53	--	43.6	40.0	41.9	13.6	11.9	13.0	122	83	105	38	33	36	440	320	373[a]	488	360	419[a]
154438	F-33	W.F.	6/10/53	5/26/53	--	42.0	40.2	41.3	13.1	11.5	12.5	124	81	104	40	34	37	416	352	379[a]	416	352	385[a]
154439	F-34	--	6/10/53	5/28/53	--	44.8	42.2	43.5	14.2	12.1	13.5	119	87	105	40	35	38	456	352	410[a]	480	352	427[a]
154440	F-35	--	6/10/53	5/29/53	--	43.0	40.0	41.7	13.7	11.9	12.8	121	94	109	36	32	34	424	312	365[a]	464	360	411[a]
Current Mill Average:								41.8			12.7			105			35			374			405
Cumulative Mill Average:								43.3			14.2			105			39			389			428
Mill Factor, %:								96.5			89.4			100.0			89.7			96.1			94.6
Mill Index, %:								97.0			91.4			99.1			97.2			100.5			100.0

TABLE IX

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill G--42-lb. Linerboard																							
154412	G-498	WFL	6/ 8/53	5/ 31/53	1	45.4	44.0	44.5	13.7	12.7	13.2	138	95	116	34	31	33	392	288	347[a]	432	368	389[a]
154413	G-499	WFL	6/ 8/53	5/31/53	1	43.8	43.0	43.4	13.7	12.5	13.2	135	93	115	34	30	32	424	280	354	480	344	387[a]
154474	G-500	WFL	6/15/53	6/ 7/53	1	44.8	43.0	44.0	13.2	11.5	12.4	139	87	112	36	30	33	384	280	312[a]	432	360	387[a]
154475	G-501	WFL	6/15/53	6/ 7/53	1	43.8	42.2	42.8	13.2	11.5	12.6	126	80	104	34	29	31	344	280	318[a]	416	304	364[a]
Current Mill Average:								43.7			12.8			112			32			333			382
Cumulative Mill Average:								43.0			13.9			107			36			360			394
Mill Factor, %:								101.6			92.1			104.7			88.9			92.5			97.0
Mill Index, %:								101.4			92.1			105.7			88.9			89.5			94.3

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE X

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture units Max.	G. E. Puncture units Min.	G. E. Puncture units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill H--42-lb. Linerboard																							
154348	H-399	WF1S	6/ 1/53	5/18/53	2	46.0	41.0	42.8	12.8	11.5	12.0	137	79	109	34	30	32	384	272	331[a]	456	360	400[a]
154349	H-400	WF1S	6/ 1/53	5/19/53	2	43.8	41.6	42.7	13.0	12.0	12.5	117	86	101	35	30	33	416	328	366[a]	440	336	384[a]
154414	H-401	WF1S	6/ 8/53	6/ 1/53	2	43.6	41.2	42.6	12.7	11.7	12.1	125	88	111	34	29	31	432	272	345[a]	416	320	377[a]
154415	H-402	WF1S	6/ 8/53	6/ 2/53	2	43.8	42.8	43.3	12.7	11.9	12.3	133	83	107	38	32	35	448	328	377[a]	440	384	410[a]
154546	H-403	WF1S	6/22/53	6/10/53	2	44.4	43.0	43.8	12.9	12.0	12.3	144	85	107	38	30	35	432	352	383[a]	456	368	427[a]
154547	H-404	WF1S	6/22/53	6/11/53	2	44.0	42.6	43.4	12.0	10.2	11.4	146	94	113	36	32	34	400	296	346[a]	472	352	405[a]
Current Mill Average:								43.1			12.1			108			33			358			400
Cumulative Mill Average:								43.0			13.7			106			35			377			406
Mill Factor, %:								100.2			88.3			101.9			94.3			95.0			98.5
Mill Index, %:								100.0			87.1			101.9			91.7			96.2			98.8

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XI

Mill I--42-lb. Linerboard																							
154390	I-311	WF1S	6/ 5/53	5/28/53	1	43.8	41.6	42.7	14.0	12.9	13.4	130	79	107	34	29	31	360	280	321	416	328	373[a]
154539	I-312	WF1S	6/19/53	6/11/53	1	44.0	42.2	43.0	14.7	14.0	14.2	124	87	105	36	30	33	408	304	343[a]	456	352	391[a]
154540	I-313	WF1S	6/19/53	6/12/53	1	43.8	42.0	43.2	13.9	13.2	13.6	116	86	103	36	31	33	392	320	355	456	368	408[a]
Current Mill Average:								43.0			13.8			105			32			340			390
Cumulative Mill Average:								42.9			13.4			106			33			344			399
Mill Factor, %:								100.2			103.0			99.1			97.0			98.8			97.7
Mill Index, %:								99.8			99.3			99.1			89.9			91.4			96.3

a This average includes the readings fore one or more specimens which tore beyond the 3/8-inch limit.

TABLE XII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1953 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper points Max.	Caliper points Min.	Caliper points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture units Max.	G. E. Puncture units Min.	G. E. Puncture units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill J--42-lb. Linerboard																							
154350	J-425	B.F.	6/ 1/53	5/11/53	—	43.8	42.4	43.2	14.1	13.2	13.7	128	96	112	34	27	32	376	296	328[a]	408	320	369[a]
154351	J-426	B.F.	6/ 1/53	5/11/53	—	44.0	42.2	43.4	14.0	12.8	13.5	125	80	110	34	29	32	384	304	333	400	336	364[a]
154380	J-427	B.F.	6/ 4/53	5/20/53	—	44.2	41.6	42.9	14.9	12.8	13.7	138	76	114	33	30	31	416	328	385[a]	384	280	328[a]
154381	J-428	B.F.	6/ 4/53	5/20/53	—	45.6	42.0	43.4	14.0	13.1	13.6	130	96	116	34	29	31	384	304	350[a]	472	352	408[a]
154467	J-429	B.F.	6/12/53	6/ 1/53	—	42.6	41.2	42.0	14.7	13.8	14.1	129	86	106	35	30	32	392	272	347[a]	440	304	373[a]
154468	J-430	B.F.	6/12/53	6/ 1/53	—	42.8	41.2	41.9	14.8	13.4	13.9	121	85	108	36	30	33	416	264	339[a]	392	336	372[a]
154552	J-431	B.F.	6/22/53	6/ 9/53	—	42.6	41.6	42.0	13.6	12.6	13.2	130	89	110	34	30	32	456	296	353[a]	488	320	392[a]
154553	J-432	B.F.	6/22/53	6/ 9/53	—	43.4	41.2	42.0	13.4	12.6	13.1	133	88	110	40	28	31	360	296	327[a]	416	352	381[a]
Current Mill Average:								42.6			13.6			111			32			345			373
Cumulative Mill Average:								42.8			13.8			106			32			353			375
Mill Factor, %:								99.5			98.6			104.7			100.0			97.7			99.5
Mill Index, %:								98.8			97.8			104.7			88.9			92.7			92.1

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XIII

Mill K--42-lb. Linerboard

No samples submitted.

TABLE XIV

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper points Max.	Caliper points Min.	Caliper points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G.E. Puncture units Max.	G.E. Puncture units Min.	G.E. Puncture units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Av.
Mill L--42-lb. Linerboard																							
154427	L-183		6/ 9/53	5/ 6/53	1	44.0	42.2	43.2	14.2	12.8	13.5	123	73	99	36	31	34	400	344	363[a]	424	352	381[a]
154428	L-184		6/ 9/53	5/ 7/53	1	44.2	42.4	43.7	14.3	12.9	13.7	130	90	113	40	32	35	400	320	352[a]	408	360	389[a]
154578	L-185		6/23/53	5/20/53	1	45.6	42.2	43.9	13.6	12.2	12.9	144	89	111	35	21	33	408	304	345[a]	400	320	362[a]
154579	L-186		6/23/53	5/21/53	1	45.8	42.8	44.1	13.8	11.6	12.7	128	91	108	36	32	34	400	320	345[a]	416	336	370[a]
154580	L-187		6/23/53	6/ 2/53	1	45.4	42.2	43.7	13.8	11.9	12.9	121	94	107	34	31	33	360	304	337[a]	424	328	371[a]
154581	L-188		6/23/53	6/ 3/53	1	43.8	42.2	43.2	13.9	12.3	13.0	130	85	107	39	33	36	392	328	359[a]	456	352	389[a]
Current Mill Average:								43.6			13.1			108			34			350			377
Cumulative Mill Average:								43.0			13.7			106			36			361			391
Mill Factor, %:								101.4			95.6			101.9			94.4			97.0			96.4
Mill Index, %:								101.2			94.2			101.9			94.4			94.1			93.1

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XV

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1953 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper points Max.	Caliper points Min.	Caliper points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture units Max.	G. E. Puncture units Min.	G. E. Puncture units Av.	Elmendorf Tear, g./sheet In. Max.	Elmendorf Tear, g./sheet In. Min.	Elmendorf Tear, g./sheet In. Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill M—42-lb. Linerboard																							
154356	M-168	W.	6/ 1/53	5/21/53	4	44.6	42.4	44.0	14.8	13.2	13.9	129	100	115	35	31	33	464	360	411[a]	440	360	398[a]
154357	M-169	W.	6/ 1/53	5/22/53	4	44.2	43.0	43.8	14.1	13.1	13.9	117	75	105	38	32	35	504	416	439[a]	448	352	391[a]
154364	M-170	W.	6/ 2/53	5/24/53	2	44.0	39.6	41.7	13.8	12.9	13.1	118	82	100	36	30	33	424	312	375	432	344	395[a]
154365	M-171	W.	6/ 2/53	5/27/53	2	44.4	40.8	42.7	14.0	13.0	13.5	133	83	107	38	30	33	448	344	401[a]	432	360	391[a]
154472	M-172	W.	6/15/53	6/ 2/53	2	44.4	41.2	43.2	14.0	12.9	13.5	134	91	115	38	32	35	488	336	382	480	352	409[a]
154473	M-173	W.	6/15/53	6/ 3/53	2	44.0	42.2	43.2	13.5	12.1	13.0	129	94	111	36	30	33	416	312	368[a]	480	368	411[a]
154550	M-174	W.	6/22/53	6/11/53	2	44.2	41.8	43.1	14.0	12.8	13.6	141	99	116	38	31	34	424	344	385[a]	504	376	425[a]
154551	M-175	W.	6/22/53	6/12/53	2	43.8	40.6	42.2	14.1	12.8	13.5	127	94	113	35	30	32	424	336	374[a]	456	360	407[a]
154576	M-176	W.	6/23/53	6/16/53	2	45.0	41.8	43.0	14.2	13.1	13.7	130	89	114	37	32	34	432	328	379[a]	432	368	407[a]
154577	M-177	W.	6/23/53	6/17/53	2	43.0	41.8	42.4	13.9	12.0	13.1	131	99	116	36	30	33	456	320	375[a]	456	352	398[a]
Current Mill Average:								42.9			13.5			111			34			389			403
Cumulative Mill Average:								42.9			13.7			107			36			387			404
Mill Factor, %:								100.0			98.5			103.7			94.4			100.5			99.8
Mill Index, %:								99.5			97.1			104.7			94.4			104.6			99.5

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVI

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper points Max.	Caliper points Min.	Caliper points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture units Max.	G. E. Puncture units Min.	G. E. Puncture units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill 0--42-lb. Linerboard																							
154382	0-1	W.F.	6/ 4/53	5/29/53	3	42.6	39.6	41.0	12.0	11.0	11.6	117	81	105	35	29	31	352	280	320	408	336	365[a]
154538	0-2[b]		6/19/53			43.0	42.0	42.4	12.8	12.0	12.4	125	87	108	33	29	31	400	304	347[a]	432	336	371[a]
Current Mill Average:								41.7			12.0			107			31			333			368
Cumulative Mill Average:																							
Mill Factor, %:																							
Mill Index, %:								96.8			86.3			100.9			86.1			89.5			90.9

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

[b]This sample was received at the Institute without a mill code identification. The mill data sheet which was sent with the sample did not carry a sample description. The sample was arbitrarily identified as "0-2."

TABLE XVIII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1953 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper points Max.	Caliper points Min.	Caliper points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture units Max.	G. E. Puncture units Min.	G. E. Puncture units Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
Mill E—44/46-lb. Drum Linerboard																							
154358	E-5[b]	W.F.	6/ 1/53	5/27/53	2	48.0	45.6	46.6	15.7	14.3	15.1	133	90	115	42	36	39	464	336	390[a]	496	392	424[a]
154359	E-6[b]	W.F.	6/ 1/53	5/29/53	2	48.0	46.2	47.4	15.0	14.0	14.5	131	88	102	40	34	37	448	352	404[a]	448	352	400[a]
154416	E-7[b]	W.F.	6/ 8/53	6/ 3/53	2	47.2	45.4	46.4	14.3	13.0	13.7	127	98	111	37	34	36	408	336	370	448	360	398[a]
154548	E-10[b]	W.F.	6/22/53	6/17/53	2	47.0	45.2	45.9	15.2	13.1	14.6	121	80	99	42	36	38	464	304	404[a]	416	352	385[a]
154549	E-11[b]	W.F.	6/22/53	6/19/53	2	47.8	45.6	46.7	16.4	14.5	15.8	116	79	97	40	35	38	432	304	387[a]	408	344	375[a]
Current Mill Average:								46.6			14.7			105			38			391			396
Cumulative Mill Average:								47.2			14.4			101			40			440			419
Mill Factor, %:								98.7			102.1			104.0			95.0			88.9			94.5

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

[b]This sample was identified as 47-lb. Linerboard.

As a supplementary part of the Continuous Baseline Study, comparisons of the mill test results with those obtained at The Institute of Paper Chemistry on corresponding samples have been included in this report. As may be noted in Table XVIII, the atmospheric conditions used prior to and during the testing period varied considerably.

TABLE XVIII

Mill Code	Preconditioning R.H., %	Preconditioning Temp., ° F.	Preconditioning Time, hr.	Conditioning R.H., %	Conditioning Temp., ° F.	Conditioning Time, hr.
A		None		32-67	87-100	--
B	50-69	60-90	0.5	50	70	144-384
C	50	73	48-168	50	73	8
D	30-31	77-78	8	50-51	72-73	16
E		None		57-65	88-92	--
F		None		43-58	73-84	48-192
G		None		50	73	24
H		None		50	73	24
I		None		54-60	86-88	--
J		None		50	72-73	0.5
K		No samples submitted.				
L		None		50-61	88-92	--
M		None		42.5-66	75-93	--
O		None		50	73	2
E*		None		46-64	80-88	--

* Drum linerboard.

A summary of the mill comparisons for the current period as compared with the previous period may be seen in Tables XIX and XX, respectively. The comparison for the various mills is given in Tables XXI to XXXIV, for the 42-lb. liner samples. A comparison of the special drum stock is given in Table XXXV. In all the comparisons given in Tables XIX to XXXV, the Institute's test values have been used as the reference line.

A comparison of the test data in Tables XIX and XX indicates that in the majority of cases there is good agreement between the mill and Institute data. Table XIX shows the average difference encountered in the comparison of Institute and mill results for the sample lots submitted by each mill for the current period, as well as the maximum difference encountered in comparing the Institute and mill test results for a given sample lot. In Table XX, the average differences shown for each test in Table XIX have been calculated on a percentage basis for each mill. In addition, for purposes of comparison, the average percentage differences for the preceding two periods are shown.

It may be noted in Table XX that the maximum variation between the average basis weight results of the Institute and those of a given mill on corresponding samples is two per cent for the current period. This figure compares favorably with the maximum variation of two per cent for the preceding two periods. Further, it may be noted that the average basis weight results for Mills C, E, G, H, J, and O are higher than those for the Institute, whereas the results for Mills A, B, D, F, I, L, and M are lower. In general, the agreement in basis weight results is very good for the current period.

The maximum variation in caliper for the current period is seven per cent. Compared with the values for the Institute, the average results for Mills A, C, D, E, F, I, L, M, and O are lower while the average results for Mills B, G, H, and J are higher. The accord between Institute and mill caliper values is good with the exception of Mills C. E, and M.

It may be noted in Table XX that the bursting strength results exhibit a maximum variation of seven per cent for the current period. The average results for Mills A, B, C, F, I, and L are higher than those for the Institute, whereas the results for Mills D, E, G, H, and J are lower and the result for Mill M is the same. The agreement in bursting strength results is very good with the exception of Mills C and F.

The G. E. puncture results exhibit a maximum variation of eleven per cent for the current period. Compared with the values for the Institute, the results for Mills A, F, G, H, and J are higher, whereas the results for Mills B and I are lower and the results for Mills C, E, and M are the same. The agreement between the Institute and mill results is very good with the exception of the variation for Mill F.

It may be seen in Tables XIX and XX that the average machine direction tear results for Mills D, F, G, I, J, L, and M are higher than those for the Institute whereas the results for the other mills are lower. The maximum variation for the current period is twelve per cent. The differences encountered for Mills E and L appear to be excessive.

With regard to the cross-machine direction tear results, it may be noted that the average results for Mills C, D, F, G, I, J, L, M, and O are higher than those for the Institute whereas the average results for the other mills are lower. The maximum variation for the current period is eighteen per cent. The differences for Mills I, J, and L appear to be excessive.

TABLE XIX

SUMMARY OF TEST RESULT COMPARISONS
(Average Mill and Institute Results)

	Mills*												
	A	B	C	D	E	F	G	H	I	J	L	M	O
No. Samples Compared	6	12	8	7	2	6	4	6	3	8	6	10	2
Basis Weight													
Institute	42.9	42.8	43.8	43.3	43.6	41.8	43.7	43.1	43.0	42.6	43.6	42.9	41.7
Mill	42.7	42.6	44.0	42.6	44.0	41.7	44.1	43.4	42.6	43.1	43.0	42.8	42.0
Av. Diff.**	-0.2	-0.2	+0.2	-0.7	+0.4	-0.1	+0.4	+0.3	-0.4	+0.5	-0.6	-0.1	+0.3
Max. Diff.***	+0.8	-1.1	+0.4	-1.3	+0.5	+0.8	+1.3	+0.7	-0.6	+1.2	-1.3	-1.0	+0.5
Caliper													
Institute	12.7	12.9	14.6	12.8	13.6	12.7	12.8	12.1	13.8	13.6	13.1	13.5	12.0
Mill	12.6	13.0	13.9	12.7	12.7	12.6	13.0	12.2	13.4	13.8	12.8	12.6	11.8
Av. Diff.**	-0.1	+0.1	-0.7	-0.1	-0.9	-0.1	+0.2	+0.1	-0.4	+0.2	-0.3	-0.9	-0.2
Max. Diff.***	-0.4	±0.1	-0.8	-0.2	-1.2	+0.9	+0.3	+0.7	-0.4	+0.3	-0.8	-1.4	-0.6
Bursting Strength													
Institute	111	106	108	108	107	105	112	108	105	111	108	111	107
Mill	114	107	114	105	104	112	108	107	107	107	110	111	--
Av. Diff.**	+3	+1	+6	-3	-3	+7	-4	-1	+2	-4	+2	0	--
Max. Diff.***	+8	+5	+9	-5	-4	+8	-7	-4	+2	-9	+7	-6	--
G. E. Puncture													
Institute	33	28	37	37	34	35	32	33	32	32	34	34	31
Mill	35	27	37	--	34	39	34	34	31	35	--	34	--
Av. Diff.**	+2	-1	0	--	0	+4	+2	+1	-1	+3	--	0	--
Max. Diff.***	+4	-3	+2	--	-2	+8	+4	+2	-6	+5	--	+5	--

(Continued on next page.)

TABLE XIX (Cont.)

SUMMARY OF TEST RESULT COMPARISONS
(Average Mill and Institute Results)

	Mills*												
	A	B	C	D	E	F	G	H	I	J	L	M	O
No. Samples Compared	6	12	8	7	2	6	4	6	3	8	6	10	2
Tearing Strength, in													
Institute	338	291	383	373	356	374	333	358	340	345	350	389	333
Mill	322	275	357	379	313	386	340	340	358	352	392	404	305
Av. Diff.**	-16	-16	-26	+6	-43	+12	+7	-18	+18	+7	+42	+15	-28
Max. Diff.***	-56	-60	-52	+23	-79	+37	+26	-38	+42	+37	+73	+52	-43
Tearing Strength, across													
Institute	386	341	413	405	384	405	382	400	390	373	377	403	368
Mill	379	336	421	427	352	436	402	376	429	420	446	441	377
Av. Diff.**	-7	-5	+8	+22	-32	+31	+20	-24	+39	+47	+69	+38	+9
Max. Diff.***	-21	+37	+59	+64	-72	+51	+49	-33	+46	+77	+106	+70	+18

* Comparison based on averages involves only those samples on which mill test data were submitted.

** Average difference is the difference between the Institute mill average and the mill average based on mill test data.

*** Maximum difference encountered in comparing the Institute average and the mill average for any sample submitted by that particular mill.

TABLE XX

SUMMARY OF TEST RESULTS--COMPARISON BY PERIODS

	Average Difference, per cent					
	Basis Weight	Caliper	Bursting Strength	G. E. Puncture	Tearing Strength in	Tearing Strength across
Mill A						
Current period	+0.5	-0.8	+3	+6	-5	-2
71st period	-0.5	-2	+3	+3	+2	-3
70th period	-0.7	-3	+0.9	0	-8	-3
Mill B						
Current period	-0.5	+0.8	+0.9	-4	-5	-1
71st period	+0.7	-0.8	-0.9	-7	-9	-3
70th period	-2	0	+1	-14	-7	-4
Mill C						
Current period	+0.5	-5	+6	0	-7	+2
71st period	+0.7	-5	+0.9	-5	-0.9	+2
70th period	+0.7	-7	+2	-3	-2	+2
Mill D						
Current period	-2	-0.8	-3	---	+2	+5
71st period	+2	-0.8	0	---	+1	+4
70th period	+2	-2	-2	---	-4	0
Mill E						
Current period	+0.9	-7	-3	0	-12	-8
71st period	-0.7	-6	0	0	-16	-14
70th period	-0.9	-12	-8	-3	-15	-12
Mill F						
Current period	-0.2	-0.8	+7	+11	+3	+8
71st period	+0.2	-5	+2	+5	-3	+4
70th period	0	-4	+5	0	-1	+6
Mill G						
Current period	+0.9	+2	-4	+6	+2	+5
71st period	+0.2	-0.7	-5	-8	-9	-4
70th period	-0.2	-0.8	-3	-6	-7	-4
Mill H						
Current period	+0.7	+0.8	-0.9	+3	-5	-6
71st period	+1	-0.8	-2	-3	-8	-8
70th period	+1	-2	+1	0	-4	-2
Mill I						
Current period	-0.9	-3	+2	-3	+5	+10
71st period	-0.2	-3	+2	-6	+2	+3
70th period	-0.2	-2	+3	-9	+3	+3
Mill J						
Current period	+1	+1	-4	+9	+2	+13
71st period	-0.5	0	-3	+3	+7	+8
70th period	-0.9	-2	-3	+9	+2	+10
Mill L						
Current period	-1	-2	+2	---	+12	+18
71st period	-0.7	-4	+3	---	-9	-3
70th period	---	---	---	---	---	---
Mill M						
Current period	-0.2	-7	0	0	+4	+9
71st period	+0.2	-5	-0.9	-6	-4	-0.7
70th period	-1	-5	+3	0	-12	-11
Mill O						
Current period	+0.7	-2	---	---	-8	+2
71st period	---	---	---	---	---	---
70th period	---	---	---	---	---	---

TABLE XXI

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30,1953
Institute Date versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G.E. Puncture, units IPC	G.E. Puncture, units Mill	G.E. Puncture, units Diff.	Elmendorf Tear g./sheet In IPC	Elmendorf Tear g./sheet In Mill	Elmendorf Tear g./sheet In Diff.	Elmendorf Tear g./sheet Across IPC	Elmendorf Tear g./sheet Across Mill	Elmendorf Tear g./sheet Across Diff.
Mill A -- 42-lb. Linerboard																						
154378	A-452	WF1S	5/25/53	2	43.4	42.8	-0.6	13.2	12.8	-0.4	105	113	+ 8	34	36	+ 2	361[a]	323	-38	381[a]	388	+ 7
154379	A-453	WF1S	5/25/53	2	43.1	42.8	-0.3	13.0	12.8	-0.2	104	112	+ 8	33	34	+ 1	327[a]	311	-16	393[a]	372	-21
154410	A-454	WF1S	5/31/53	2	43.2	42.8	-0.4	12.4	12.2	-0.2	115	116	+ 1	34	35	+ 1	343	325	-18	397[a]	378	-19
154411	A-455	WF1S	6/ 1/53	2	43.3	42.7	-0.6	12.3	12.5	+0.2	116	115	- 1	33	35	+ 2	362[a]	306	-56	397[a]	384	-13
154518	A-456	WF1S	6/ 7/53	2	42.0	42.8	+0.8	12.6	12.8	+0.2	113	116	+ 3	32	36	+ 4	315	320	+ 5	378[a]	371	- 7
154519	A-457	WF1S	6/ 7/53	2	42.2	42.6	+0.4	12.7	12.5	-0.2	112	114	+ 2	32	36	+ 4	321	351	+30	369[a]	383	+14
Current Mill Average					42.9	42.7	-0.2	12.7	12.6	-0.1	111	114	+ 3	33	35	+ 2	338	322	-16	386	379	- 7

TABLE XXII

Mill B -- 42-lb. Linerboard

154352	B-803	WF1S	5/ 5/53	1	42.5	42.6	+0.1	12.8	12.8	0.0	108	111	+ 3	28	29	+ 1	287	267	-20	352[a]	333	-19
154353	B-804	WF1S	5/ 5/53	1	42.5	42.5	0.0	12.9	12.8	-0.1	109	111	+ 2	28	29	+ 1	276	276	0	351[a]	338	-13
154354	B-805	WF1S	5/ 5/53	1	42.7	42.8	+0.1	12.9	12.8	-0.1	107	112	+ 5	28	29	+ 1	285[a]	283	- 2	335[a]	351	+16
154355	B-806	WF1S	5/ 5/53	1	42.6	42.5	-0.1	12.8	12.9	+0.1	110	110	0	28	29	+ 1	283	272	-11	351[a]	338	-13
154454	B-807	WF1S	5/29/53	1	42.8	42.3	-0.5	12.9	13.0	+0.1	103	106	+ 3	30	27	- 3	316[a]	256	-60	348[a]	314	-34
154455	B-808	WF1S	5/29/53	1	43.7	42.6	-1.1	13.1	13.1	0.0	103	106	+ 3	29	26	- 3	285[a]	259	-26	333[a]	310	-23
154456	B-809	WF1S	5/29/53	1	42.8	42.4	-0.4	13.0	13.1	+0.1	103	105	+ 2	29	26	- 3	297[a]	265	-32	333[a]	335	+ 2
154457	B-810	WF1S	5/29/53	1	42.8	42.4	-0.4	13.1	13.0	-0.1	103	105	+ 2	27	27	0	295[a]	262	-33	344[a]	325	-19
154514	B-811	WF1S	5/29/53	1	42.8	42.4	-0.4	12.9	13.0	+0.1	105	106	+ 1	27	27	0	293	275	-18	334[a]	329	- 5
154515	B-812	WF1S	5/29/53	1	42.7	42.8	+0.1	12.9	12.9	0.0	106	104	- 2	27	27	0	313	285	-28	329[a]	343	+14
154516	B-813	WF1S	5/29/53	1	42.8	43.0	+0.2	13.1	13.0	-0.1	107	105	- 2	28	27	- 1	289	297	+ 8	355[a]	352	- 3
154517	B-814	WF1S	5/29/53	1	42.7	42.9	+0.2	13.0	13.1	+0.1	106	105	- 1	27	26	- 1	268[a]	298	+30	333[a]	370	+37
Current Mill Average:					42.8	42.6	-0.2	12.9	13.0	+0.1	106	107	+ 1	28	27	- 1	291	275	-16	341	336	- 5

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXIII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1953 (continued)
Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight lb.			Caliper, points			Bursting, strength, p.s.i. gage								
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill C --42-lb. Linerboard																			
154481	C-475	W.F.	6/ 2/53	1	44.7	45.0	+0.3	14.7	13.9	-0.8	108	116	+ 8	38	39	+ 1	385[a]	392	+ 7
154482	C-476	W.F.	6/ 2/53	1	44.7	45.0	+0.3	14.8	14.1	-0.7	107	111	+ 4	37	39	+ 2	391	339	-52
154483	C-477	W.F.	6/ 3/53	1	42.9	43.1	+0.2	14.5	13.8	-0.7	109	117	+ 8	36	36	0	365[a]	353	-12
154484	C-478	W.F.	6/ 3/53	1	42.8	43.0	+0.2	14.5	13.8	-0.7	108	117	+ 9	35	35	0	363[a]	319	-44
154485	C-479	W.F.	6/ 9/53	1	43.7	43.6	-0.1	14.5	13.9	-0.6	104	110	+ 6	37	38	+ 1	388[a]	359	-29
154486	C-480	W.F.	6/ 9/53	1	43.5	43.8	+0.3	14.4	13.9	-0.5	109	108	- 1	37	37	0	391[a]	370	-21
154487	C-481	W.F.	6/10/53	1	44.2	44.3	+0.1	14.9	14.1	-0.8	106	115	+ 9	36	38	+ 2	391[a]	385	- 6
154488	C-482	W.F.	6/10/53	1	44.0	44.4	+0.4	14.7	14.0	-0.7	111	116	+ 5	39	38	- 1	388[a]	336	-52
Current Mill Average:					43.8	44.0	+0.2	14.6	13.9	-0.7	108	114	+ 6	37	37	0	383	357	-26

TABLE XXIV

Mill D --42-lb. Linerboard

154409	D-659	W.F.	6/ 3/53	4	43.8	42.8	-1.0	13.1	13.0	-0.1	113	110	- 3	37			391[a]	389	- 2
154401	D-660	W.F.	6/ 4/53	--	42.3	41.5	-0.8	12.2	12.2	0.0	111	110	- 1	34			374[a]	380	+ 6
154459	D-661	W.F.	6/ 5/53	--	42.8	41.5	-1.3	12.8	12.7	-0.1	102	100	- 2	37			368[a]	370	+ 2
154460	D-662	W.F.	6/ 9/53	4	43.2	43.7	+0.5	12.7	12.6	-0.1	109	104	- 5	37			365[a]	369	+ 4
154469	D-663	W.F.	6/10/53	4	43.4	42.6	-0.8	12.8	12.8	0.0	108	105	- 3	37			349[a]	367	+18
154513	D-664	W.F.	6/15/53	4	43.8	43.1	-0.7	13.0	13.0	0.0	105	103	- 2	37			371[a]	394	+23
154545	D-665	W.F.	6/17/53	4	44.0	43.1	-0.9	13.0	12.8	-0.2	108	105	- 3	37			394[a]	383	-11
Current Mill Average:					43.3	42.6	-0.7	12.8	12.7	-0.1	108	105	- 3	37			373	379	+ 6

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXV

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953 (continued)
Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G.E. Puncture, units			Elmendorf Tear, g./sheet					
																	In			Across		
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill E -- 42-lb. Linerboard																						
154476	E-8	W.F.	6/10/53	2	43.1	43.4	+0.3	13.1	12.6	+0.5	104	100	- 4	34	35	+ 1	355[a]	348	- 7	374[a]	383	+ 9
154512	E-9	W.F.	6/12/53	2	44.2	44.7	+0.5	14.0	12.8	-1.2	110	108	- 2	34	32	- 2	357[a]	278	-79	394[a]	322	-72
Current Mill Average:					43.6	44.0	+0.4	13.6	12.7	-0.9	107	104	- 3	34	34	0	356	313	-43	384	352	-32

TABLE XXVI

Mill F -- 42-lb. Linerboard

154366	F-30	---	5/14/53	--	41.2	42.0	+0.8	12.2	11.8	-0.4	106	112	+ 6	31	39	+ 8	351[a]	388	+37	385[a]	436	+51
154367	F-31	---	5/14/53	--	41.0	40.7	-0.3	12.1	12.0	-0.1	105	111	+ 6	33	39	+ 6	365[a]	387	+22	403[a]	427	+24
154437	F-32	W.F.	5/23/53	--	41.9	41.4	-0.5	13.0	13.9	+0.9	105	106	+ 1	36	38	+ 2	373[a]	353	-20	419[a]	396	-23
154438	F-33	W.F.	5/26/53	--	41.3	41.6	+0.3	12.5	12.1	-0.4	104	112	+ 8	37	39	+ 2	379[a]	381	+ 2	385[a]	428	+43
154439	F-34	---	5/28/53	--	43.5	42.9	-0.6	13.5	13.1	-0.4	105	113	+ 8	38	40	+ 2	410[a]	408	- 2	427[a]	473	+46
154440	F-35	---	5/29/53	--	41.7	41.8	+0.1	12.8	12.6	-0.2	109	114	+ 5	34	38	+ 4	365[a]	400	+35	411[a]	456	+45
Current Mill Average:					41.8	41.7	-0.1	12.7	12.6	-0.1	105	112	+ 7	35	39	+ 4	374	386	+12	405	436	+31

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit
Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXVII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength. p.s.i. gage			G. E. Puncture, units			Elmendorf Tear g./sheet					
																	In			Across		
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill G -- 42-lb. Linerboard																						
154412	G-498	WFL	5/31/53	1	44.5	44.3	-0.2	13.2	13.5	+0.3	116	112	- 4	33	35	+ 2	347[a]	359	+12	389[a]	438	+49
154413	G-499	WFL	5/31/53	1	43.4	44.7	+1.3	13.2	13.3	+0.1	115	112	- 3	32	36	+ 4	354	380	+26	387[a]	423	+36
154474	G-500	WFL	6/ 7/53	1	44.0	44.1	+0.1	12.4	12.6	+0.2	112	105	- 7	33	33	0	312[a]	308	- 4	387[a]	383	- 4
154475	G-501	WFL	6/ 7/53	1	42.8	43.3	+0.5	12.6	12.6	0.0	104	105	+ 1	31	33	+ 2	318[a]	312	- 6	364[a]	365	+ 1
Current Mill Average:					43.7	44.1	+0.4	12.8	13.0	+0.2	112	108	- 4	32	34	+ 2	333	340	+ 7	382	402	+20

TABLE XXVIII

Mill H -- 42-lb. Linerboard

154348	H-399	WF1S	5/18/53	2	42.8	43.5	+0.7	12.0	12.1	+0.1	109	111	+ 2	32	33	+ 1	331[a]	332	+ 1	400[a]	371	-29
154349	H-400	WF1S	5/19/53	2	42.7	43.4	+0.7	12.5	12.4	-0.1	101	103	+ 2	33	33	0	366	336	-30	384[a]	367	-17
154414	H-401	WF1S	6/ 1/53	2	42.6	43.2	+0.6	12.1	12.1	0.0	111	110	- 1	31	33	+ 2	345[a]	315	-30	377[a]	345	-32
154415	H-402	WF1S	6/ 2/53	2	43.3	43.4	+0.1	12.3	12.2	-0.1	107	106	- 1	35	36	+ 1	377[a]	339	-38	410[a]	377	-33
154546	H-403	WF1S	6/10/53	2	43.8	43.4	-0.4	12.3	12.3	0.0	107	105	- 2	35	34	- 1	383[a]	365	-18	427[a]	414	-13
154547	H-404	WF1S	6/11/53	2	43.4	43.4	0.0	11.4	12.1	+0.7	113	109	- 4	34	34	0	346[a]	353	+ 7	405[a]	383	-22
Current Mill Average:					43.1	43.4	+0.3	12.1	12.2	+0.1	108	107	- 1	33	34	+ 1	358	340	-18	400	376	-24

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXIX

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1953 (continued)
Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G.E. Puncture, units			Elmendorf Tear, g./sheet					
																	In			Acrpss		
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill I --42-lb. Linerboard																						
154390	I-311	WF1S	5/28/53	1	42.7	42.5	-0.2	13.4	13.2	-0.2	107	108	+ 1	31	32	+ 1	321	363	+42	373[a]	419	+46
154539	I-312	WF1S	6/11/53	1	43.0	42.4	-0.6	14.2	13.8	-0.4	105	107	+ 2	33	34	+ 1	343[a]	359	+16	391[a]	427	+36
154540	I-313	WF1S	6/12/53	1	43.2	42.7	-0.5	13.6	13.2	-0.4	103	105	+2	33	27	- 6	355	352	- 3	408[a]	441	+33
Current Mill Average:					43.0	42.6	-0.4	13.8	13.4	-0.4	105	107	+ 2	32	31	- 1	340	358	+18	390	429	+39

TABLE XXX

Mill J -- 42-lb. Linerboard

154350	J-425	B.F.	5/11/53	--	43.2	43.0	-0.2	13.7	13.9	+0.2	112	103	- 9	32	36	+ 4	328[a]	365	+37	369[a]	436	+67
154351	J-426	B.F.	5/11/53	--	43.4	43.1	-0.3	13.5	13.8	+0.3	110	105	- 5	32	35	+ 3	333	354	+21	364[a]	389	+25
154380	J-427	B.F.	5/20/53	--	42.9	43.8	+0.9	13.7	14.0	+0.3	114	107	- 7	31	36	+ 5	385[a]	378	- 7	328[a]	405	+77
154381	J-428	B.F.	5/20/53	--	43.4	43.5	+0.1	13.6	13.9	+0.3	116	113	- 3	31	35	+ 4	350[a]	361	+11	408[a]	429	+21
154467	J-429	B.F.	6/ 1/53	--	42.0	42.4	+0.4	14.1	14.0	-0.1	106	105	- 1	32	34	+ 2	347[a]	350	+ 3	373[a]	420	+47
154468	J-430	B.F.	6/ 1/53	--	41.9	42.4	+0.5	13.9	14.0	+0.1	108	106	- 2	33	35	+ 2	339[a]	349	+10	372[a]	433	+61
154552	J-431	B.F.	6/ 9/53	--	42.0	43.2	+1.2	13.2	13.5	+0.3	110	107	- 3	32	34	+ 2	353[a]	335	-18	392[a]	441	+49
154553	J-432	B.F.	6/ 9/53	--	42.0	43.1	+1.1	13.1	13.4	+0.3	110	107	- 3	31	34	+ 3	327[a]	326	- 1	381[a]	409	+28
Current Mill Average:					42.6	43.1	+0.5	13.6	13.8	+0.2	111	107	- 4	32	35	+ 3	345	352	+7	373	420	+47

TABLE XXXI

Mill K -- 42-lb. Linerboard

No Samples Submitted

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953 (continued)

Institute Data versus Mill data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G.E. Puncture, units			Elmendorf Tear, g./sheet					
																	In			Across		
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill L -- 42-lb. Linerboard																						
154427	L-183		5/ 6/53	1	43.2	42.8	-0.4	13.5	13.8	+0.3	99	106	+ 7	34			363[a]	360	- 3	381[a]	400	+19
154428	L-184		5/ 7/53	1	43.7	42.4	-1.3	13.7	12.9	-0.8	113	111	- 2	35			352[a]	369	+17	389[a]	418	+29
154578	L-185		5/20/53	1	43.9	43.3	-0.6	12.9	12.6	-0.3	111	109	- 2	33			345[a]	391	+46	362[a]	457	+95
154579	L-186		5/21/53	1	44.1	43.0	-1.1	12.7	12.3	-0.4	108	111	+ 3	34			345[a]	395	+50	370[a]	438	+68
154580	L-187		6/ 2/53	1	43.7	43.2	-0.5	12.9	12.5	-0.4	107	112	+ 5	33			337[a]	407	+70	371[a]	465	+94
154581	L-188		6/ 3/53	1	43.2	43.0	-0.2	13.0	12.5	-0.5	107	111	+ 4	36			359[a]	432	+73	389[a]	495	+106
Current Mill Average:					43.6	43.0	-0.6	13.1	12.8	-0.3	108	110	+ 2	34			350	392	+42	377	446	+69

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.
Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXIII

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength p.s.i. gage			G. E. Puncture, units			Elmendorf Tear g./sheet					
																	In			Across		
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill M -- 42-lb. Linerboard																						
154356	M-168	W.	5/21/53	4	44.0	43.8	-0.2	13.9	13.5	-0.4	115	115	0	33	38	+5	411[a]	463	+52	398[a]	449	+51
154357	M-169	W.	5/22/53	4	43.8	43.7	-0.1	13.9	13.2	-0.7	105	108	+3	35	36	+1	439[a]	477	+38	391[a]	461	+70
154364	M-170	W.	5/24/53	2	41.7	41.4	-0.3	13.1	12.9	-0.2	100	101	+1	33	37	+4	375	392	+17	395[a]	443	+48
154365	M-171	W.	5/27/53	2	42.7	41.7	-1.0	13.5	13.0	-0.5	107	106	-1	33	34	+1	401[a]	398	- 3	391[a]	416	+25
154472	M-172[b]	W.	6/ 2/53	2	43.2	43.3	+0.1	13.5	12.6	-0.9	115	113	-2	35	36	+1	382	391	+ 9	409[a]	471	+62
154473	M-173	W.	6/ 3/53	2	43.2	43.0	-0.2	13.0	12.0	-1.0	111	112	+1	33	33	0	368[a]	373	+ 5	411[a]	462	+51
154550	M-174	W.	6/11/53	2	43.1	43.5	+0.4	13.6	12.5	-1.1	116	113	-3	34	34	0	385[a]	387	+ 2	425[a]	461	+36
154551	M-175	W.	6/12/53	2	42.2	42.0	-0.2	13.4	12.0	-1.4	113	114	+1	32	31	-1	374[a]	381	+ 7	407[a]	410	+ 3
154576	M-176	W.	6/16/53	2	43.0	42.9	-0.1	13.7	12.3	-1.4	114	113	-1	34	31	-3	379[a]	377	- 2	407[a]	399	- 8
154577	M-177	W.	6/17/53	2	42.4	42.4	0.0	13.1	12.2	-0.9	116	110	-6	33	34	+1	375[a]	398	+23	398[a]	441	+43
Current Mill Average					42.9	42.8	-0.1	13.5	12.6	-0.9	111	111	0	34	34	0	389	404	+15	403	441	+38

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXIV

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1953 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength p.s.i. gage			G. E. Puncture, units			Elmendorf Tear g./sheet					
																	In			Across		
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill O -- 42-lb. Linerboard																						
154382	O-1	W.F.	5/29/53	3	41.0	41.5	+0.5	11.6	11.8	+0.2	105	100	- 5	31			320	307	-13	365[a]	364	- 1
154538	O-2[b]				42.4	42.5	+0.1	12.4	11.8	-0.6	108			31			347[a]	304	-43	371[a]	389	+18
Current Mill Average:					41.7	42.0	+0.3	12.0	11.8	-0.2	107			31			333	305	-28	368	377	+ 9
Mill E -- 44/46-lb. Drum Linerboard																						
154358	E-5[b]	W.F.	5/27/53	2	46.6	45.6	-1.0	15.1	14.1	-1.0	115	113	- 2	39	39	0	390[a]	365	-25	424[a]	396	-28
154359	E-6[b]	W.F.	5/29/53	2	47.4	47.4	0.0	14.5	13.6	-0.9	102	97	- 5	37	37	0	404[a]	354	-50	400[a]	390	-10
154416	E-7[b]	W.F.	6/ 3/53	2	46.4	47.7	+1.3	13.7	12.8	-0.9	111	114	+ 3	36	34	- 2	370	340	-30	398[a]	399	+ 1
154548	E-10[b]	W.F.	6/17/53	2	45.9	45.9	0.0	14.6	14	-0.6	99	90	- 9	38	40	+ 2	404[a]	455	+51	385[a]	457	+72
154549	E-11[b]	W.F.	6/19/53	2	46.7	46.6	-0.1	15.8	15.0	-0.8	97	98	+ 1	38	39	+ 1	387[a]	370	-17	375[a]	432	+57
Current Mill Average:					46.6	46.6	0.0	14.7	13.9	-0.8	105	103	- 2	38	38	0	391	377	-14	396	415	+19

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

[b]This sample was received at the Institute without a mill code identification. The mill data sheet which was sent with the sample did not carry a sample description. The sample was arbitrarily identified as "O-2".

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXV

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

[b]This sample was identified as 47-lb. Linerboard.

Note: All "current mill average" data are calculated from the totals of the individual readings.